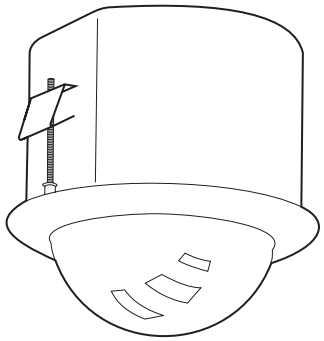


BB5A/BB5T Series Back Box

Installation/ Operation Manual

C1488M-B (2/99)

Pelco • 3500 Pelco Way, Clovis • CA 93612-5699 USA • www.pelco.com
In North America and Canada: Tel (800) 289-9100 or FAX (800) 289-9150
International Customers: Tel (1-559) 292-1981 or FAX (1-559) 348-1120

CONTENTS

Section		Page
1.0	GENERAL	3
1.1	IMPORTANT SAFEGUARDS AND WARNINGS	3
1.2	REGULATORY NOTICES	4
1.3	UNPACKING INSTRUCTIONS	5
1.4	RECOMMENDED TOOLS	5
2.0	DESCRIPTION	6
2.1	MODELS	6
2.2	CERTIFICATIONS	6
3.0	INSTALLATION FOR IN-CEILING MODELS	7
3.1	CEILING AND BACK BOX PREPARATION	7
3.1.1	Hard Ceiling	7
3.1.2	Suspended Ceiling	8
3.2	WIRING	8
3.3	BACK BOX INSTALLATION	12
3.4	BACK BOX CONNECTIONS	13
4.0	INSTALLATION FOR PENDANT MODELS	15
4.1	PENDANT-MOUNT INSTALLATION	15
4.2	SURFACE-MOUNT INSTALLATION	15
5.0	TROUBLESHOOTING	16
5.1	SERVICE MANUAL	16
6.0	SPECIFICATIONS	17
7.0	WARRANTY AND RETURN INFORMATION	20

LIST OF ILLUSTRATIONS

Figure		Page
1	Back Box Parts	5
2	Compass Tool	7
3	Conduit Fitting Installation	7
4	Installing Back Box	9
5	Fastening Back Box	9
6	Wiring Diagram for Spectra™ (Ver. 3.0) and Spectra II™	10
7	Wiring Diagram for Spectra™ Lite	10
8	Interconnect Door	12
9	Transformer Wiring	13
10	Interconnect Circuit Board Electrical Connections for Spectra™ (Ver. 3.0) and Spectra II™	13
11	Interconnect Circuit Board for Spectra™ Lite	14
12	SD5 Series Dimension Drawing	18

LIST OF TABLES

Table		Page
A	Video Coaxial Cable Wiring Distances	8
B	24 VAC Wiring Distances	11

REVISION HISTORY

Manual #	Date	Comments
C1488M	6/98	Original version.
C1488M-A	9/98	Rev A. Revised the manual to incorporate Spectra™ Lite material.
C1448M-B	2/99	Rev B. Revised the input power ratings, certifications, and operating temperatures. Revised model numbers for Spectra Lite™.

1.0 GENERAL

1.1 IMPORTANT SAFEGUARDS AND WARNINGS

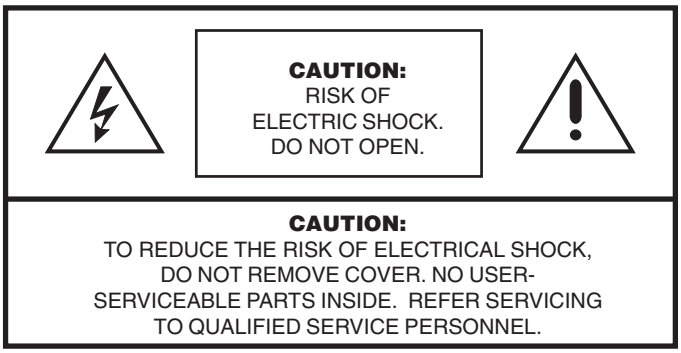
Prior to installation and use of this product, the following WARNINGS should be observed.

1. Installation and servicing should only be done by qualified service personnel and conform to all local codes.
2. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.
3. Only use replacement parts recommended by Pelco.
4. After replacement/repair of this unit's electrical components, conduct a resistance measurement between line and exposed parts to verify the exposed parts have not been connected to line circuitry.
5. The installation method and materials should be capable of supporting four times the weight of the enclosure, pan/tilt, camera and lens combination.

The product and/or manual may bear the following marks:

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

1.2 REGULATORY NOTICES

NOTE: This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

1.3 UNPACKING INSTRUCTIONS

Unpack and inspect all parts carefully.

Be sure to save the shipping box and any inserts. They are the safest material in which to make future shipments.

If an item appears to have been damaged in shipment, replace it properly in its box and contact the factory at 1-800-289-9100 or 1-559-292-1981 for a replacement. (International customers fax 1-559-348-1120 for authorization and instructions.)

If an item needs to be returned to the factory for repair, consult the WARRANTY AND RETURN section of this manual for instructions.

The following items are supplied:

IN-CEILING MODELS

- 1 Back box
- 1 Installation/Operation Manual (C1488M)
- 1 Parts bag (refer to Figure 1)
  - 1 Conduit fitting
  - 1 Safety chain bracket
  - 1 Lock nut
  - 1 Compass tool
  - 4 T-rail clip (clip, L-bracket, screw, lock washer, nut)

PENDANT MODELS

- 1 Back box
- 1 Tube of pipe sealant
- 1 Installation/Operation Manual (C1488M)

1.4 RECOMMENDED TOOLS

Pelco does not supply basic tools needed for the installation process. The following tools are recommended:

Small flat screwdriver
Coaxial cable stripper
BNC crimp tool
Wire stripper
Wire cutter
Pen or pencil (in-ceiling models only)
Drill with 3/32-inch drill bit (in-ceiling models only)
Saw to cut hole in ceiling (in-ceiling models only)
Medium Phillips screwdriver (in-ceiling models and pendant surface-mount only)
Drill with hole saw (pendant surface-mount only)

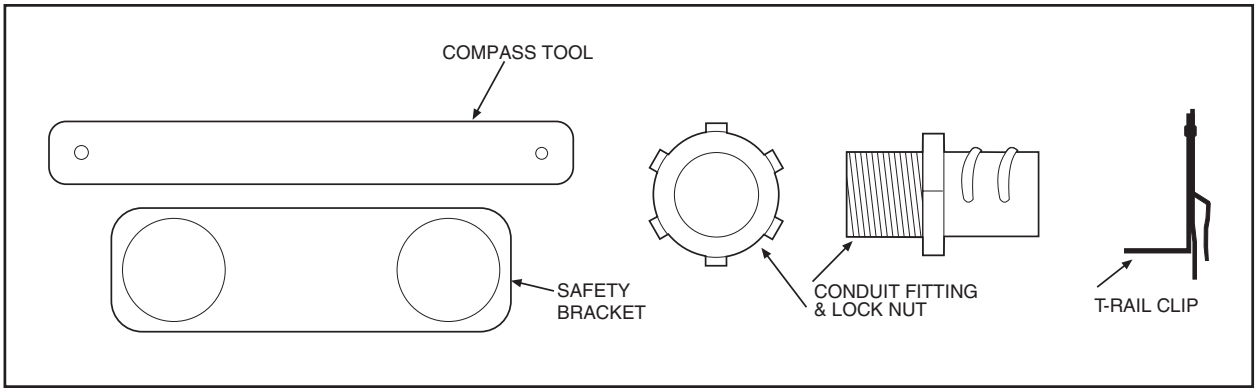


Figure 1. Back Box Parts

2.0 DESCRIPTION

The BB5A Series back boxes are used with the SD5 Series of Spectra™ (Software Version 3.0) domes and SD5A Series of Spectra II™ domes. The BB5T Series back boxes are used with the SD5T Series of Spectra™ Lite domes.

The BB5A-F and BB5T-F are for indoor installation in hard ceilings or standard 2-foot x 2-foot (61 x 61 cm) suspended ceilings.

The BB5A-PB (black), BB5A-PG (light gray), and BB5T-PG (light gray) pendant back boxes are for indoor installation. For outdoor use, the BB5A-PG-E and BB5T-PG-E include a heater and sun shield. The heater allows operation in temperatures down to -60°F (-51°C).

2.1 MODELS

BB5A-F	Indoor back box for flush mounting in a ceiling
BB5A-PB	Black pendant-mount back box
BB5A-PG	Light gray pendant-mount back box
BB5A-PG-E	Same as BB5A-PG except includes heater and sun shield
BB5T-F	Indoor back box for flush mounting in a ceiling
BB5T-PG	Light gray pendant-mount back box
BB5T-PG-E	Same as BB5T-PG except includes heater and shield

2.2 CERTIFICATIONS

The products identified below have been tested and certified for agency compliance as noted.

	Agency Compliance Certification			
Model	**CE**	**FCC**	**UL**	**CSA/cUL**
BB5A-F			X	X
BB5A-PB			X	X
BB5A-PG			X	X
BB5A-PG-E			X	X
BB5T-F			X	X
BB5T-PG			X	X
BB5T-PG-E			X	X

Applicable CE, FCC, UL, and CSA/cUL directives/standards:

- 93/68/EEC–CE Mark Directive
  - 89/336/EEC, 92/31/EEC–Electromagnetic Compatibility (EMC) Directives
    - EN 55022: 1984 Class A–Radio-frequency emissions limits
    - EN 50082-2: 1992–Immunity standard
      - IEC 801-2: 1984–ESD immunity
      - IEC 801-3: 1984–Radiated field immunity
      - IEC 801-4: 1988–Electrical Transients
- FCC–47 CFR, Part 15, Subpart B, Class B
- UL Listed (DRQH) E119552
- cUL Listed (DRQH7)

Additional applicable standards:

- NEMA Type 4 (except -F flush mount models; NEMA Type 1)
- IP 66 (except -F flush mount models; NEMA Type 10)

3.0 INSTALLATION FOR IN-CEILING MODELS

This manual covers the installation of the BB5A-F, BB5A-PB, BB5A-PG, BB5A-PG-E, BB5T-F, BB5T-PG, and BB5T-PG-E back boxes only. For complete installation and operating instructions for the SD5 Series of Spectra™ (Software Version 3.0) domes, refer to manual C1456M-D; for the SD5A Series of Spectra II™ domes and SD5T Series of Spectra™ Lite domes, refer to manual C1487M-B.

3.1 CEILING AND BACK BOX PREPARATION

3.1.1 Hard Ceiling

CAUTION: *Be careful not to cut outside of the line. If you do, you may not be able to install the back box. Also, the trim ring may not cover the hole.*

1. Locate the center point where you want to drill a hole in the ceiling.
2. Drill a hole in the ceiling using a 3/32-inch drill bit.
3. Remove the compass tool from the parts bag (refer to Figure 2). Press the stud of the compass tool into the hole in the ceiling. Insert a pencil in the hole in the other end of the compass and mark a circle on the ceiling.
4. Carefully cut the circle out of the ceiling.
5. Remove the conduit fitting, lock nut, and safety chain bracket from the parts bag and attach them to the top or side of the back box as shown in Figure 3 (side installation shown).

Proceed to Section 3.2, WIRING.

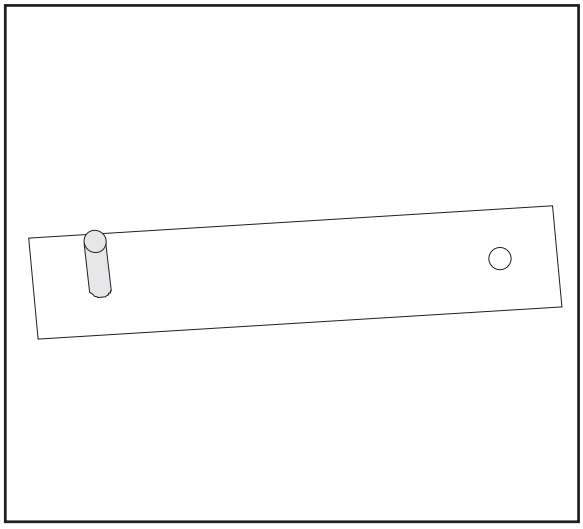


Figure 2. Compass Tool

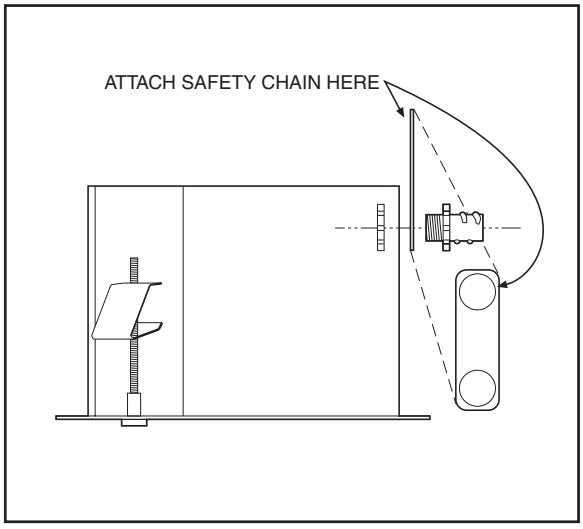


Figure 3. Conduit Fitting Installation

3.1.2 Suspended Ceiling

CAUTION: *The ceiling tile must be capable of supporting 16 pounds (7.3 kg) of weight. If the ceiling tile will not support this weight, use the optional SD5-P metal panel.*

CAUTION: *Be careful not to cut outside of the line. If you do, you may not be able to install the back box. Also, the trim ring may not cover the hole.*

1. Remove the ceiling tile from the ceiling.
2. Locate the center point to drill a hole in the tile.
3. Drill a hole in the ceiling tile using a 3/32-inch drill bit.
4. Remove the compass tool from the parts bag (refer to Figure 2). Press the stud of the compass tool into the hole in the ceiling. Insert a pencil in the hole in the other end of the compass and mark a circle on the ceiling.
5. Carefully cut the circle out of the ceiling tile.
6. Remove the conduit fitting, lock nut, and safety chain bracket from the parts bag and attach them to the top or side of the back box as shown in Figure 3 (side installation shown).
7. Refer to Figure 4. Compress the spring clips on the back box with your hands and push the back box through the hole in the ceiling tile. The spring clips will spring out when they clear the ceiling tile.
8. Refer to Figure 5. Tighten the screws until the spring clips hold the back box firmly to the ceiling tile. You will hear a clicking noise when the screws are tight. Do not install the ceiling tile in the ceiling yet.

Proceed to Section 3.2, WIRING.

3.2 WIRING

Bring wiring to the back box opening in the ceiling. Do not attach the wiring to the back box. You will do that later.

Refer to Figure 6 for the wiring diagram for Spectra™ (Version 3.0) and Spectra II™, and to Figure 7 for the Spectra™ Lite.

Wiring is required for power, earth ground, and video.

Refer to Table A for the type of video coaxial cable to use.

Input power is 24 VAC only. Power consumption is 30 vA per dome for indoor models and 75 vA for outdoor models. Refer to Table B to determine the size of wire to use.

Use a 24 VAC transformer with the following minimum vA:

40 vA per dome	For indoor models (without heater)
100 vA per dome	For outdoor models (with heater)

Refer to Figure 9 for wiring multiple domes from the same transformer.

If you **will** use a Coaxitron® controller, the control signals to operate the dome drive will be transmitted over the video coax. The RS-422 control lines are not used.

If you **will not** use a Coaxitron® controller, use the RS-422 control lines. Use 22-gauge wire. The distance will be the same as the video coax.

Optional wiring may be provided for alarm inputs (maximum of seven), relay output, and auxiliary output.

Proceed to Section 3.3, BACK BOX INSTALLATION.

NOTE: *The dome will stop operating if the voltage at the dome drops below 18 VAC. It will turn back on when the voltage exceeds 18 VAC.*

Table A. Video Coaxial Cable Wiring Distances

Cable Type*	Maximum Distance
RG59/U	750 ft (229 m)
RG6/U	1,000 ft (305 m)
RG11/U	1,500 ft (457 m)

* Minimum cable requirements:
75 ohms impedance
All-copper center conductor
All-copper braided shield with 95% braid coverage

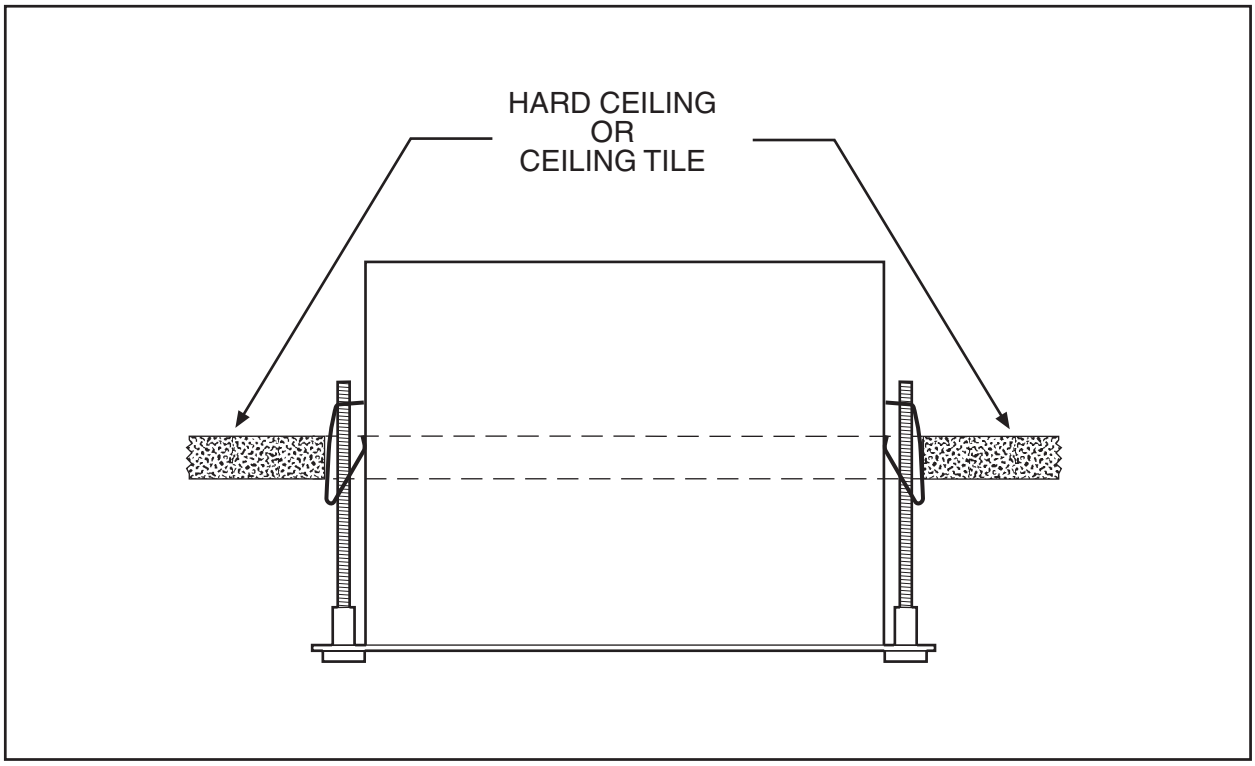


Figure 4. Installing Back Box

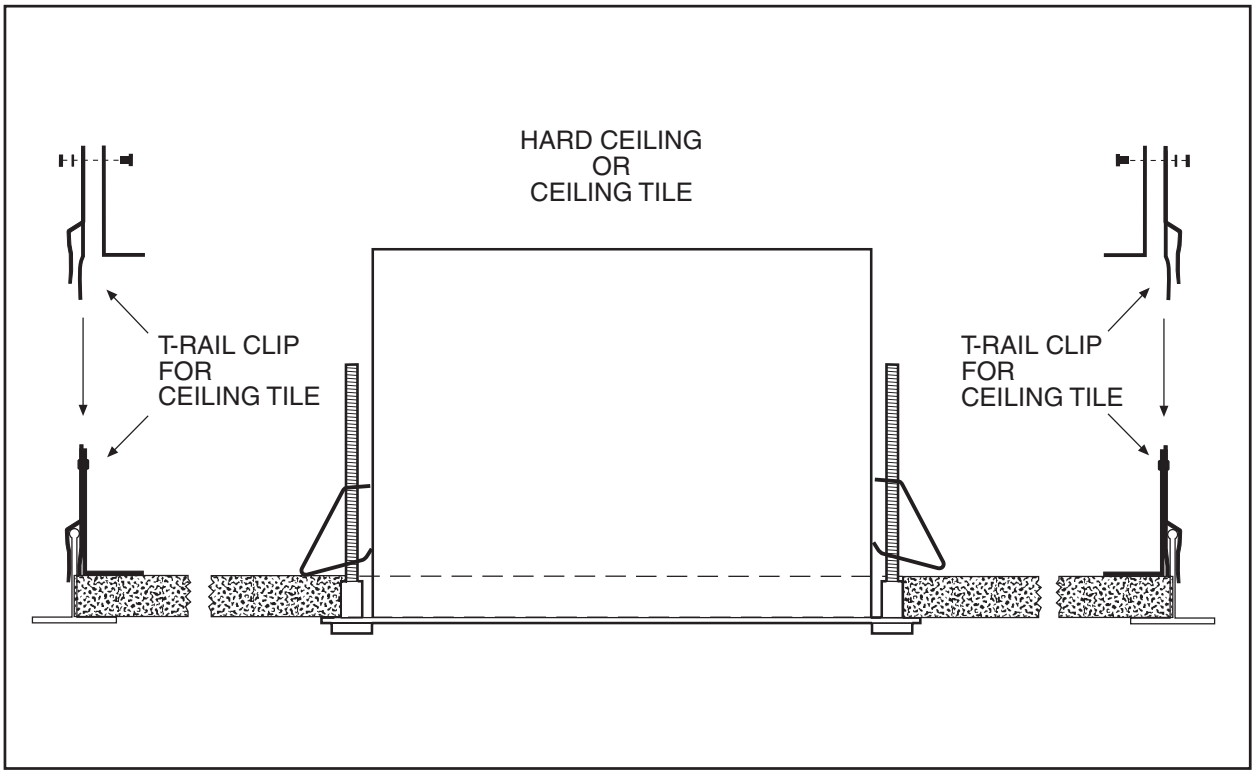


Figure 5. Fastening Back Box

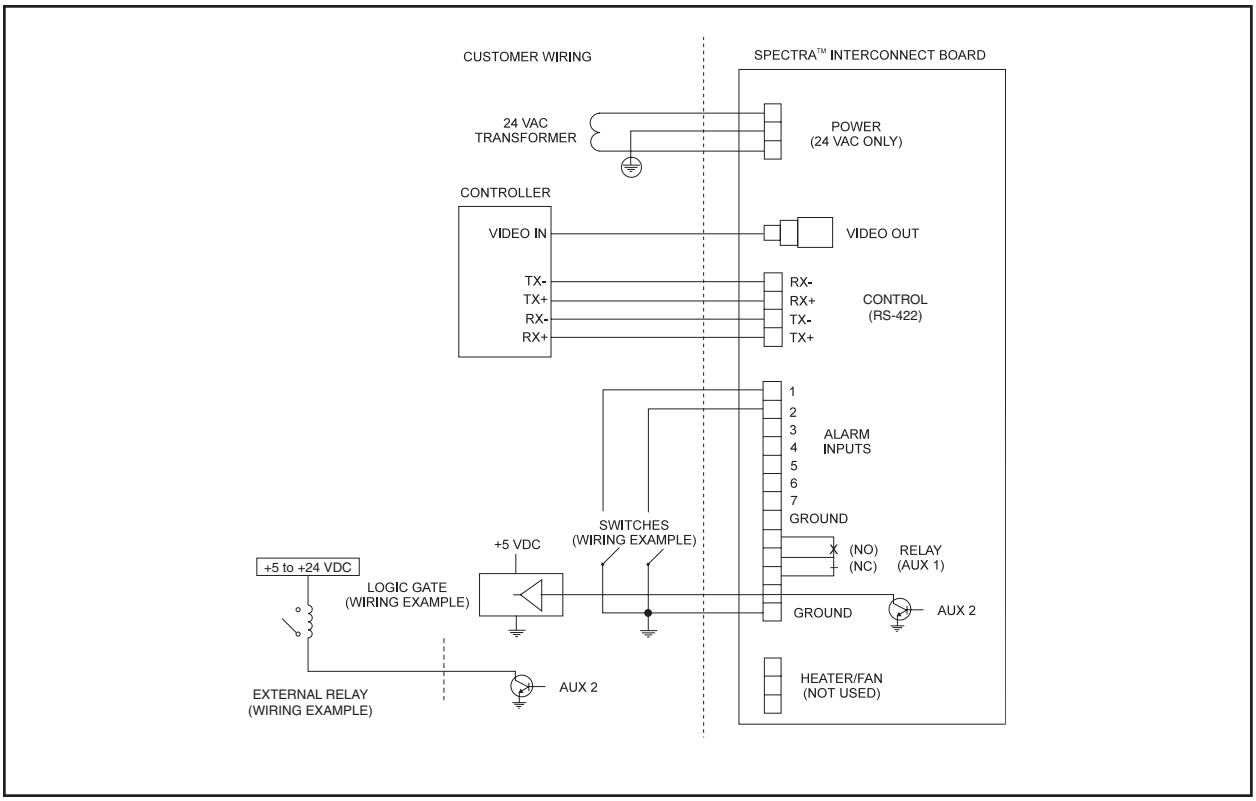


Figure 6. Wiring Diagram for Spectra™ (Ver. 3.0) and Spectra II™

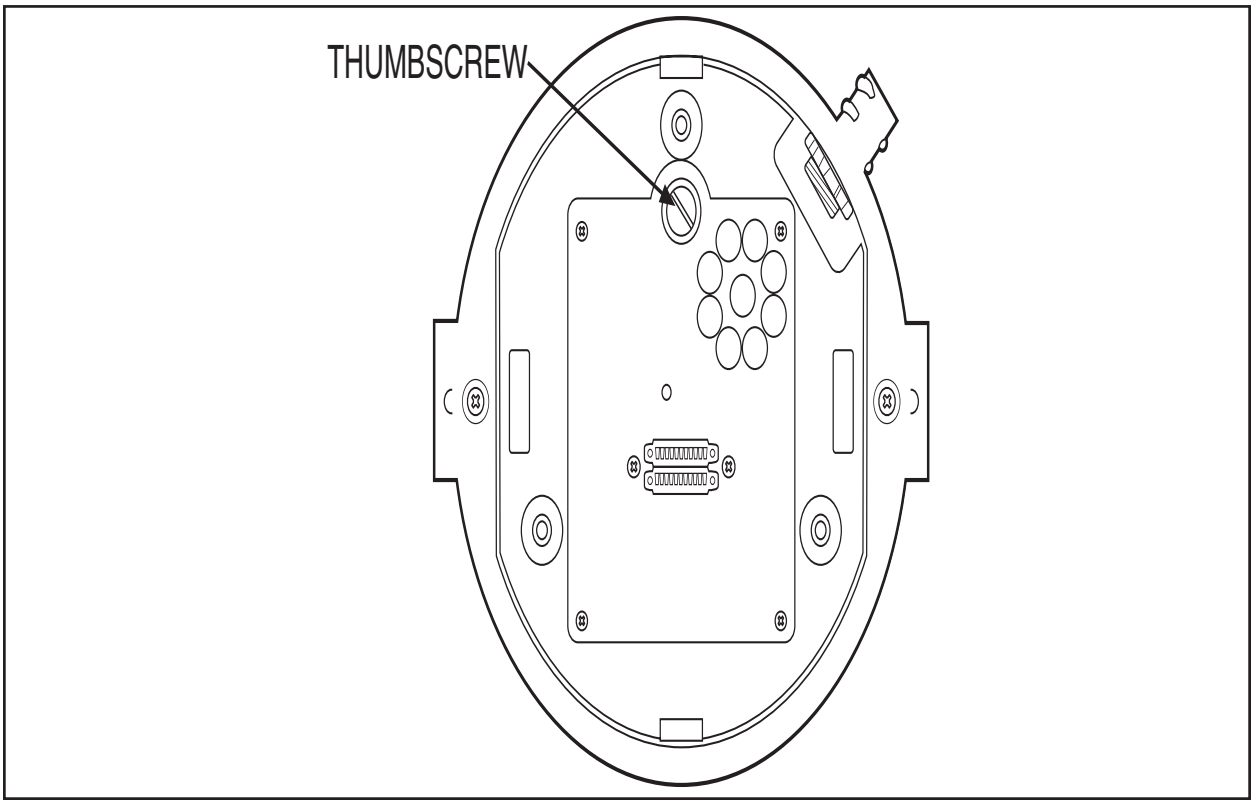


Figure 7. Wiring Diagram for Spectra™ Lite

Table B. 24 VAC Wiring Distances

The following are the recommended maximum distances for 24 VAC with a 10-percent voltage drop. (Ten percent is generally the maximum allowable voltage drop for AC-powered devices.)

	Wire Gauge					
	20	18	16	14	12	10
30 vA	94 ft (28 m)	150 ft (45 m)	238 ft (72 m)	380 ft (115 m)	603 ft (183 m)	960 ft (292 m)
75 vA	37 ft (11 m)	60 ft (18 m)	95 ft (29 m)	152 ft (46 m)	241 ft (73 m)	384 ft (117 m)

3.3 BACK BOX INSTALLATION

OPTIONAL PROCEDURE: *If you prefer, you may make the wiring connections inside the back box before installing the back box in the ceiling.*

To do this, loosen the thumbscrew inside the back box and open the hinged door (refer to Figure 8). Bring the wiring into the back box through the conduit fitting. Follow the steps in Section 3.4, "Back Box Connections," and then return to this section.

CAUTION: *The ceiling must be capable of supporting 16 pounds (7.3 kg) of weight. If the ceiling will not support this weight, provide additional reinforcement. Also, a suitable safety chain must be attached to the back box to support up to 16 pounds (7.3 kg) in the event of a ceiling failure.*

1. **Suspended Ceiling Only (for hard ceiling, go to step 2) –** Install the ceiling tile with the back box. Attach a T-rail clip on each side of the ceiling tile as shown in Figure 5.

2. Install a safety chain or cable (not supplied) that will support up to 16 pounds (7.3 kg). Fasten one end to a support structure in the ceiling. Fasten the other end to the safety chain bracket (refer to Figure 3) to prevent the back box from falling.

3. Refer to Figure 8. Loosen the thumbscrew inside the back box and open the hinged door.

4. Bring the wiring into the back box through the conduit fitting. If the wiring is inside flexible conduit, connect the conduit to the fitting on the back box.

5. **Hard Ceiling Only -** Refer to Figure 4. Compress the spring clips on the back box with your hands and push the back box through the hole in the ceiling. The spring clips will spring out when they clear the ceiling. Refer to Figure 5. Tighten the screws until the spring clips hold the back box firmly to the ceiling. You will hear a clicking noise when the screws are tight.

Proceed to Section 3.4, BACK BOX CONNECTIONS.

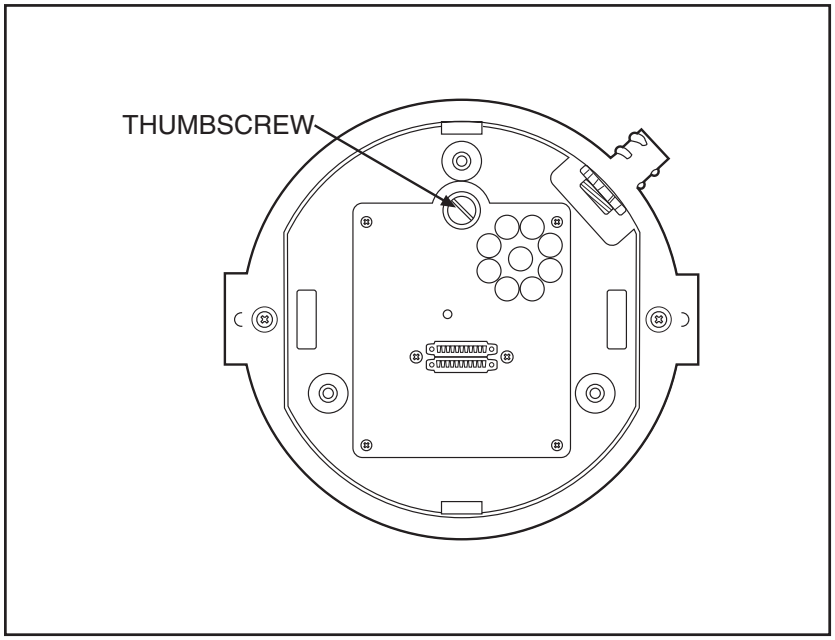


Figure 8. Interconnect Door

3.4 BACK BOX CONNECTIONS

WARNING: *Make sure you wire power to the outer connectors of the terminal block and ground to the middle connector. Otherwise, you could damage the dome.*

Depending on the type of dome, refer to either Figure 10 or 11 to attach the wiring to the interconnect circuit board inside the back box. Also refer to Figure 6 or 7 if necessary.

1. **Earth Ground -** Connect earth ground to the middle connector on the power connector.

2. **Power -** Connect 24 VAC from the transformer to the outer terminals on the power connector. It does not matter which lead goes to which terminal.

   If you are wiring more than one dome from the same transformer, it is important to wire the power connector in each dome the same way. That is, the wiring from one side of the transformer must be connected to the same connector on each dome. If you reverse the wiring, the cameras will be out of phase with each other and may produce what appears to be vertical roll when switching between cameras. Refer to Figure 9 for a wiring diagram.

3. **Video -** Connect the coaxial cable to the BNC video connector.

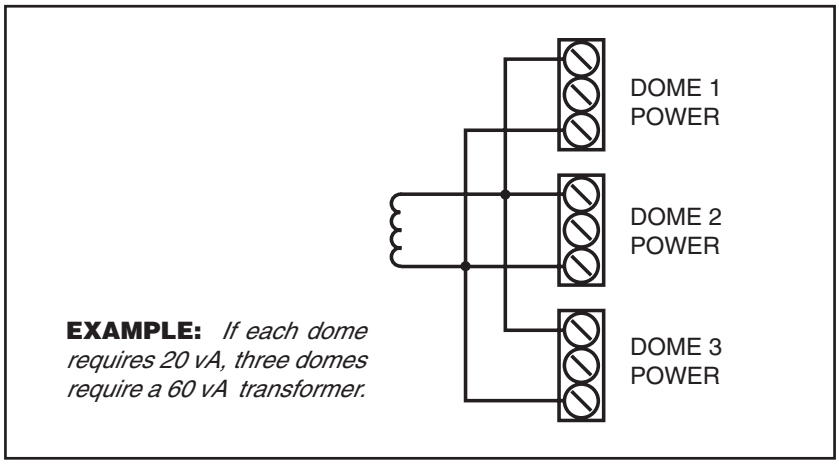


Figure 9. Transformer Wiring

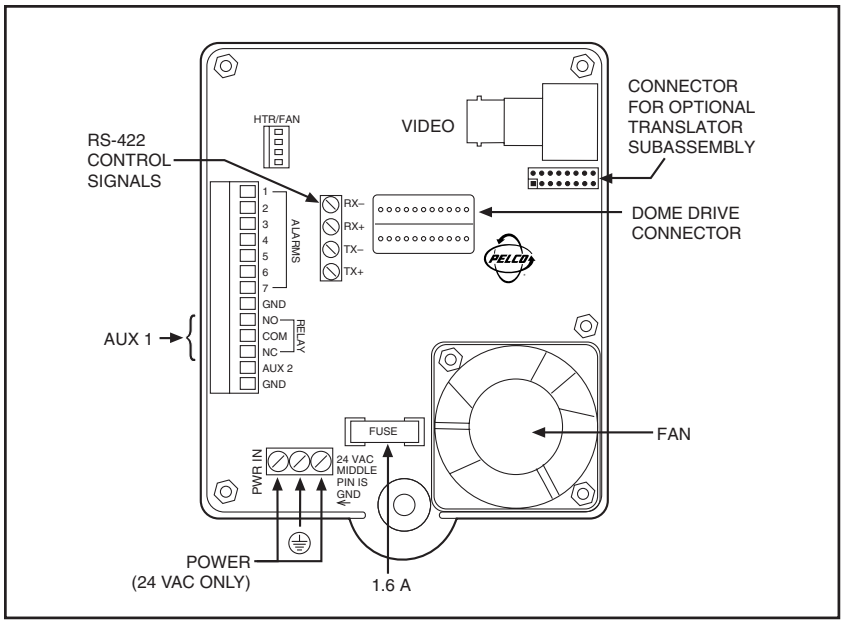


Figure 10. Interconnect Circuit Board Electrical Connections for Spectra™ (Ver. 3.0) and Spectra II™

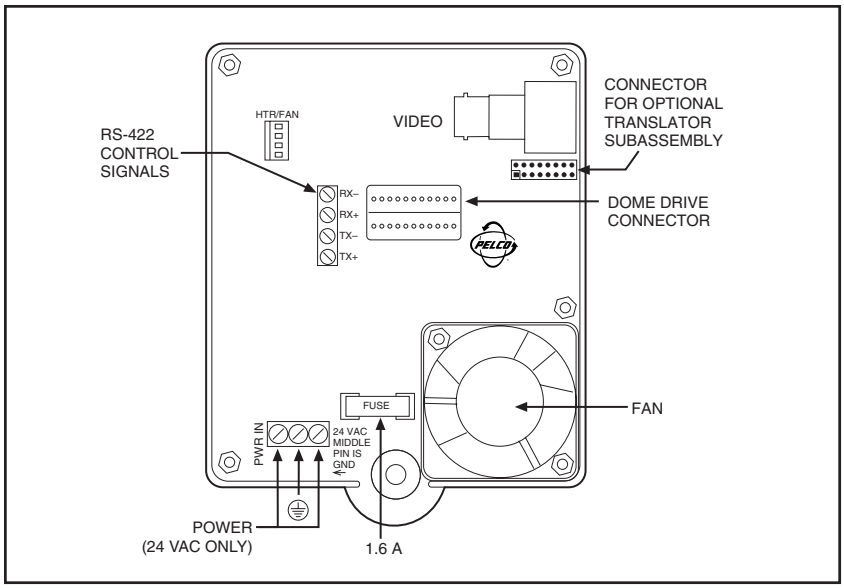


Figure 11. Interconnect Circuit Board for Spectra™ Lite

4. **Control -** If you are using a Coaxitron® controller, control signals will be transmitted over the video coax.

   If you are using RS-422 (P or D) control signals, connect the control lines from the controller to the circuit board. Connect the wires as follows:

From controller	To 4-Wire terminal on circuit board
RX-	TX-
RX+	TX+
TX-	RX-
TX+	RX+

5. **Heater/Fan -** The heater/fan is not used on indoor models.

6. **Alarm Inputs - (Spectra™ [Version 3.0] and Spectra II™ Only)** If you need alarm inputs, connect them. The maximum number of alarm inputs is seven. Refer to Figure 6 for a typical wiring example. Alarm inputs require a ground signal through a contact closure, such as a switch.

7. **AUX 1 - (Spectra™ [Version 3.0] and Spectra II™ Only)** An AUX 1 command from the controller will activate the relay output. If you need the relay, wire it as required. Refer to Figure 6. The relay contacts are shown when AUX 1 is inactive. When an AUX 1 command is issued, the relay contacts will reverse and remain latched until a clear command is issued.

8. **AUX 2 - (Spectra™ [Version 3.0] and Spectra II™ Only)** An AUX 2 command from the controller will place a ground at the output of AUX 2 to operate the device connected to it. The output will remain latched until a clear command is issued. If you need the AUX 2 output, wire it as required. Refer to Figure 6 for typical wiring examples. The AUX 2 output is an open collector transistor driver which is capable of passing a maximum of 150 mA at 32 VDC. It is capable of driving TTL logic circuits or low-current reed relays. If you use an external relay, make sure that both the supply voltage and the current requirements are well below the maximum of 32 VDC and 150 mA. Exceeding these values will cause permanent damage to the dome. If you are not familiar with open collector drive requirements, contact Pelco technical support for assistance.

9. Close the door and tighten the thumbscrew securely.

10. Turn on power to the back box. The red LED on the interconnect door should light. The fan will not operate until a dome drive is installed.

    If the LED does not light, correct the trouble before proceeding. Refer to Section 5.0, TROUBLESHOOTING.

NOTE: *Connect only a low voltage device to the relay output. Maximum current rating of the relay contacts is two amperes.*

CAUTION: *The maximum output of AUX 2 is 150 mA. If you connect a device that draws more current, you could destroy the output transistor. The output is intended to drive logic circuits or low-current devices. If higher current is required, connect the output to a relay.*

CAUTION: *Leave adequate slack in the wiring to permit the door to open without pulling on the connectors.*

4.0 INSTALLATION FOR PENDANT MODELS

4.1 PENDANT-MOUNT INSTALLATION

NOTE: *If outdoors, apply Duct Seal inside the pipe portion of the back box to prevent moisture or cold air inside the mount from entering the unit and causing condensation on the dome. Duct Seal can be purchased through local electrical supply houses.*

1. Install the pendant dome mount. Refer to the instructions provided with the mount. If the mount is outdoors, make sure it is properly sealed to keep moisture out.
2. Bring the wiring for the dome through the mount. Refer to Section 3.2, WIRING.
3. Refer to Figure 8. Loosen the thumbscrew inside the back box and open the hinged door.
4. Screw the back box into the mount as far as possible and bring the wiring into the back box. If outdoors, apply the provided pipe sealant to the threads on the back box.
5. Attach the wiring to the back box. Refer to Section 3.4, BACK BOX CONNECTIONS. Hanging down from the back box is a short cable (the trim ring leash) and a heater connector with two wires (outdoor units only). The leash and heater wiring will be connected when the lower dome is installed.

4.2 SURFACE-MOUNT INSTALLATION

1. Use a hole saw to drill a hole in the ceiling where you want to hang the pendant dome.
2. Bring the wiring for the dome to the opening. Refer to Section 3.2, WIRING.
3. Refer to Figure 8. Loosen the thumbscrew inside the back box and open the hinged door.
4. Remove the gasket and the top mount from the back box by taking out the three screws and lock washers.
5. Attach the back box to the ceiling using #8 hardware (not supplied).
6. Attach the wiring to the back box. Refer to Section 3.4, BACK BOX CONNECTIONS. Hanging down from the back box is a short cable (the trim ring leash) and a heater connector with two wires (outdoor units only). The leash and heater wiring will be connected when the lower dome is installed.

5.0 TROUBLESHOOTING

Symptom: LED does not light.

If the red power LED on the door of the interconnect circuit board in the back box does not light:

1. Turn off power.

2. Open the door to the interconnect circuit board and check the fuse. Refer to Figure 10 for the location of the fuse. If the fuse is bad, replace it. To order a replacement fuse from Pelco, specify the part number FUS1.6-5X20FAST. This is a 1.6-ampere fuse, 5 x 20 mm, fast blow.

3. If the fuse is good, turn on power and use a voltmeter to check if 24 VAC is getting to the power connector on the interconnect circuit board. Refer to Figure 10 for the location of the AC power connector.

4. If there is 24 VAC to the power connector, turn off the power and return the back box electronic assembly to the factory for repair.

   To remove the back box electronic assembly:

   a. Turn off power.

   b. Open the interconnect door and disconnect all wiring to the back box.

   c. Use an 11/32-inch socket driver to remove the three 8-32 washers and nuts that hold the electronic assembly to the back box. When the screws are removed, the interconnect back box receptacle will drop down. It may be necessary to move the open interconnect door past 90° vertical toward the side of the back box to release the door from built-in grounding strip (and free the interconnect back box receptacle).

   d. Remove the interconnect back box receptacle with the electronic components from the back box.

5.1 SERVICE MANUAL

If you need to service your unit, obtain a service manual in on of the following ways:

- Go to Pelco's web site at ftp://www.pelco.com and find service manual C1455SM.
- Contact Pelco's Literature Department and request service manual C1455SM.

6.0 SPECIFICATIONS

MECHANICAL

Construction
- Back box: Aluminum

Cable Entry
- In-Ceiling: .75" (1.91 cm) conduit fitting
- Pendant: Through 1.5" (3.81 cm) NPT pendant mount

Dimensions: See Figure 12

ELECTRICAL

Input Voltage: 18-30 VAC, 24 VAC nominal

Input Power
- In-ceiling: 30 vA
- Indoor pendant: 30 vA
- Outdoor pendant: 75 vA

Fuse: 1.6 A

Relay
Contacts (AUX 1)*
- Type: Form C
- Voltage: Low voltage (< 40 v)
- Current: 2 A maximum

AUX 2 Output*
- Type: Open collector transistor output
- Voltage: 32 VDC maximum
- Current: 150 mA maximum

* Applies to Spectra™ (Version 3.0) and Spectra II™ only.

GENERAL

Environment
- In-Ceiling: Indoor only
- Pendant: Indoor/outdoor

Operating Range
- In-Ceiling: 32° to 140°F (0° to 60°C) absolute operating temperatures; 32° to 122°F (0° to 50°C) sustained operating temperatures

Pendant
- Without Heater: 32° to 140°F (0° to 60°C) absolute operating temperatures; 32° to 122°F (0° to 50°C) sustained operating temperatures
- With Heater*: Maximum operating temperature: 140°F (60°C) absolute; 122°F (50°C) sustained
  Minimum operating temperature: -60°F (-51.11°C) absolute; minimal icing at -50°F (-45.56°C) sustained; prevents icing at -40°F (-40°C) sustained; de-ices .1" (2.5 mm) within 3 hours after power-up

Weight	Unit	Shipping
In-Ceiling		
Back Box	2.6 lbs (1.18 kg)	4.0 lbs (1.81 kg)
Pendant		
Back Box†	2.85 lbs (1.28 kg)	5.0 lbs (2.27 kg)

* Assumes no wind chill factor; for detailed test conditions, contact Pelco.
† Add 1.25 lbs (.57 kg) for outdoor models with sun shield and heater

(Design and product specifications subject to change without notice.)

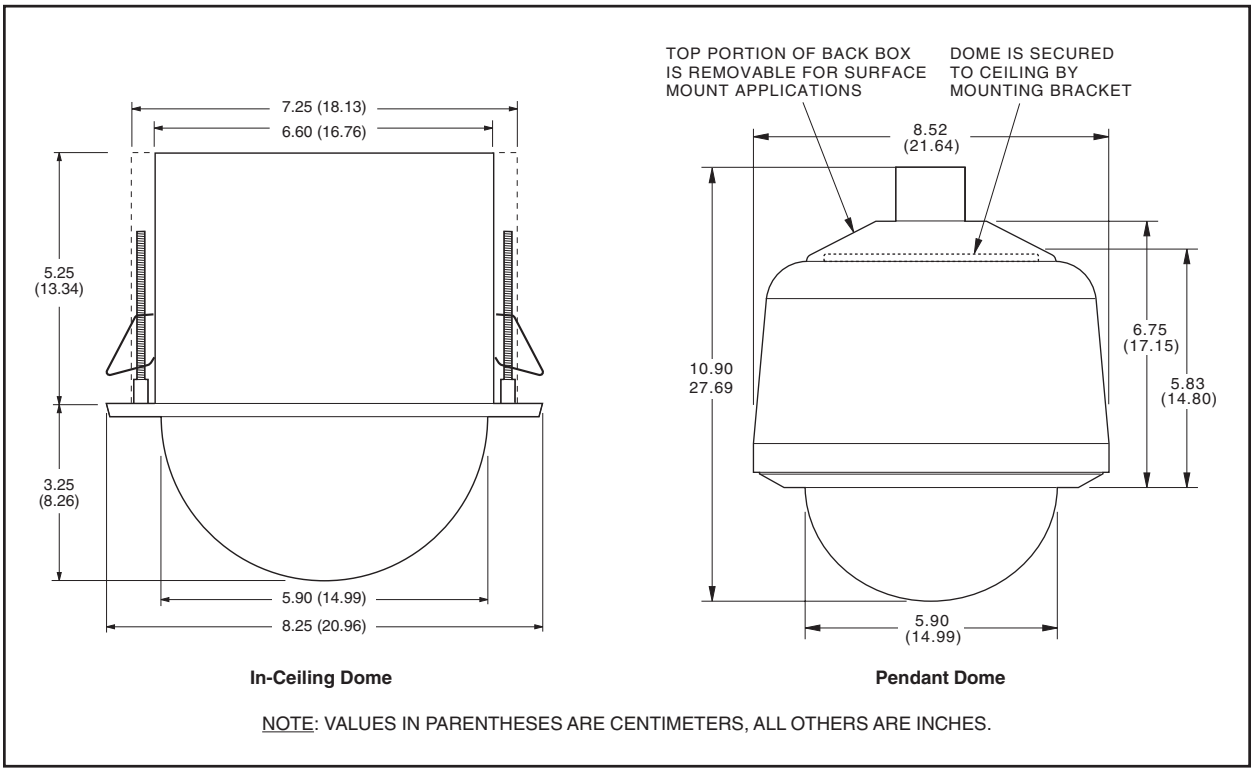


Figure 12. SD5 Series Dimension Drawing

NOTES

7.0 WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship for a period of one year after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:
1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned. Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

Service Department
Pelco
3500 Pelco Way
Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:
If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco
3500 Pelco Way
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors
473 Eccles Avenue
South San Francisco, CA 94080 USA
Phone: 650-737-1700
Fax: 650-737-0933

Pelco, the Pelco logo, Camclosure, Esprit, Genex, Legacy, and Spectra are registered trademarks of Pelco.
Endura and ExSite are trademarks of Pelco.

© Copyright 1999, Pelco. All rights reserved.